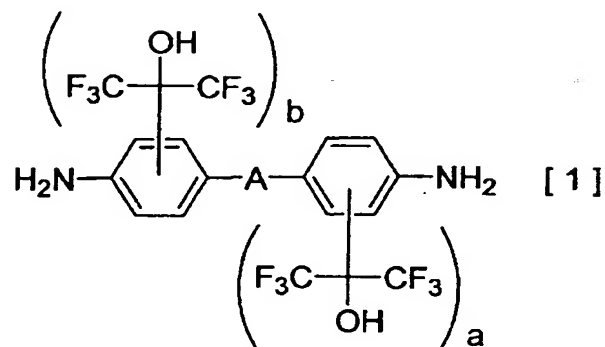


CLAIMS

1. A fluorine-containing polymerizable monomer represented by the formula [1],

5 [Chem. 22]

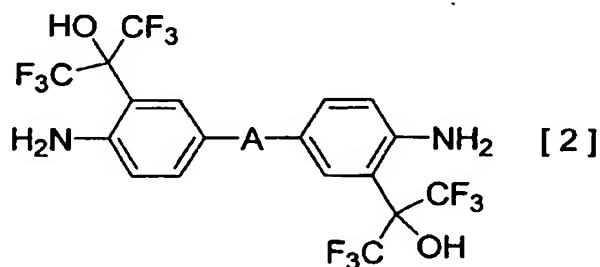


wherein A represents a single bond, oxygen atom, sulfur atom, CO, CH₂, SO, SO₂, C(CH₃)₂, NHCO, C(CF₃)₂, phenyl, or aliphatic ring; each of "a" and "b" independently represents an integer of 0-2; and 1 ≤ a+b ≤ 4.

10

2. A fluorine-containing polymerizable monomer represented by the formula [2],

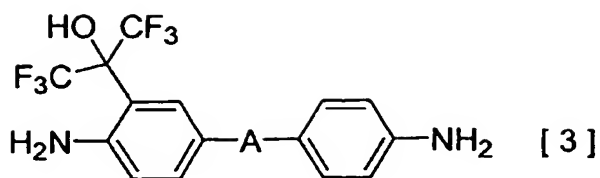
[Chem. 23]



15 wherein A represents a single bond, oxygen atom, sulfur atom, CO, CH₂, SO, SO₂, C(CH₃)₂, NHCO, C(CF₃)₂, phenyl, or aliphatic ring.

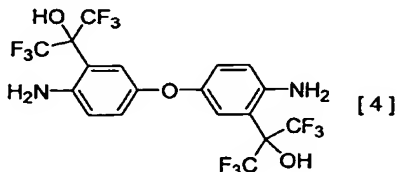
3. A fluorine-containing polymerizable monomer represented by the formula [3],

20 [Chem. 24]

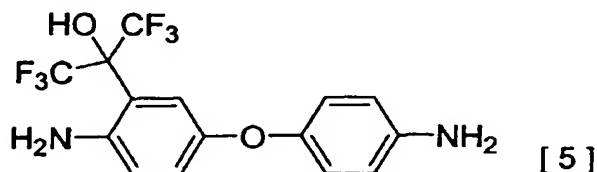


wherein A represents a single bond, oxygen atom, sulfur atom, CO, CH₂, SO, SO₂, C(CH₃)₂, NHCO, C(CF₃)₂, phenyl, or aliphatic ring.

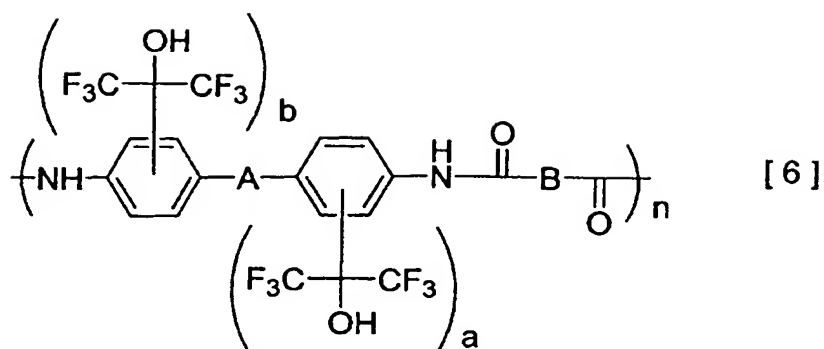
- 5 4. 3,3'-bis(1-hydroxy-1-trifluoromethyl-2,2,2-trifluoroethyl)-
4,4'-oxydianiline represented by the formula [4].
[Chem. 25]



- 10 5. 3-(1-hydroxy-1-trifluoromethyl-2,2,2-trifluoroethyl)-4,4'-oxydianiline
represented by the formula [5].
[Chem. 26]



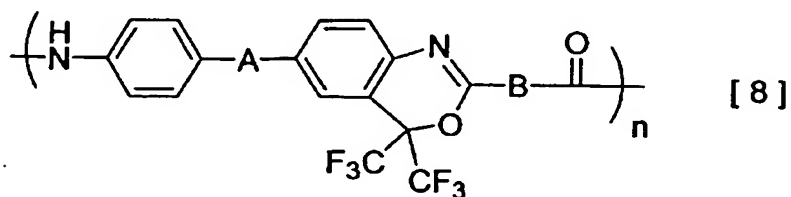
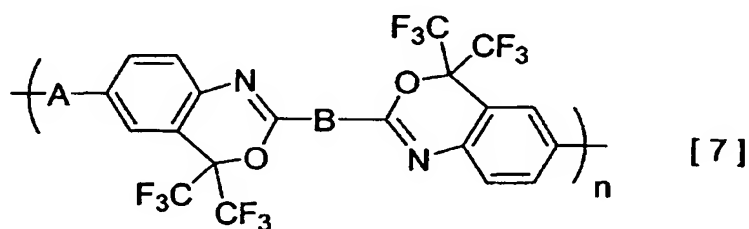
- 15 6. A polymer compound obtained by a polymerization using a
fluorine-containing polymerizable monomer according to any one of claims 1-5.
7. A polymer compound according to claim 6, which is represented by the
formula [6],
- 20 [Chem. 27]



wherein "A", "a" and "b" are the same as those of the formula [1]; B is a bivalent organic group containing at least one selected from aliphatic rings, aromatic rings and alkylene groups; it may contain fluorine, chlorine, oxygen, sulfur or nitrogen, and its hydrogens may be partially replaced with alkyl group, fluoroalkyl group, carboxylic group, hydroxyl group or cyano group; and "n" represents degree of polymerization.

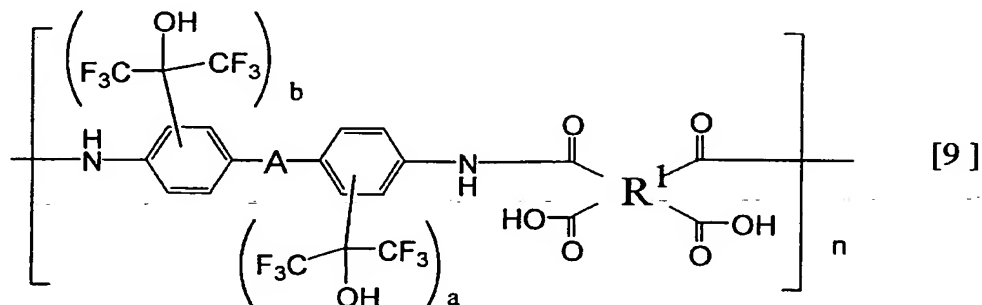
8. A polymer compound represented by the formula [7] or [8] that is obtained by subjecting a polymer compound according to claim 7, which is obtained by a polymerization using a monomer according to claim 2 or 3, to a cyclization condensation,

[Chem. 28]



wherein A, B and n are the same as those of the formula [6].

9. A polymer compound according to claim 6, which is obtained by a synthesis using a monomer according to the formula [1] and is represented by the formula [9],

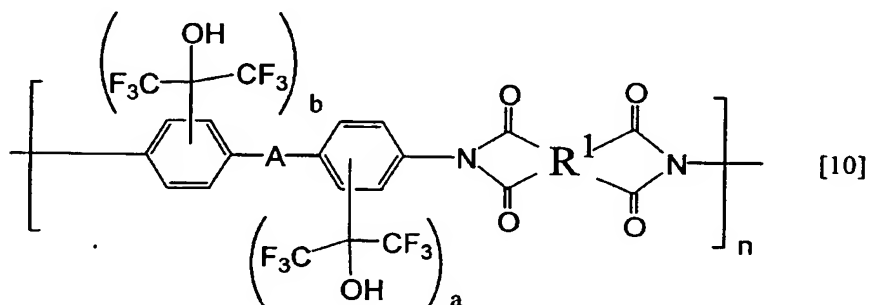


5 wherein "A", "a" and "b" are the same as those of the formula [1]; R¹ is a tetravalent organic group containing at least one selected from aliphatic rings, aromatic rings and alkylene groups; it may contain fluorine, chlorine, oxygen, sulfur or nitrogen, and its hydrogens may be partially replaced with alkyl group, fluoroalkyl group, carboxylic group, hydroxyl group or cyano group; and "n"

10 represents degree of polymerization.

10. A polymer compound that is obtained by subjecting a polymer compound according to the formula [9] to a cyclization condensation and is represented by the formula [10],

15 [Chem. 30]



wherein "A", "a" and "b" are the same as those of the formula [1]; R¹ is a tetravalent organic group containing at least one selected from aliphatic rings, aromatic rings and alkylene groups; it may contain fluorine, chlorine, oxygen, sulfur or nitrogen, and its hydrogens may be partially replaced with alkyl group,

20

fluoroalkyl group, carboxylic group, hydroxyl group or cyano group; and "n" represents degree of polymerization.